



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUL 20 2016

REPLY TO THE ATTENTION OF:
E-19J

David Fuller
Missile Defense Agency
5700 18th Street
Fort Belvoir, Virginia 22060-5573

Re: Draft Environmental Impact Statement for Continental United States Interceptor Site Placement at the Fort Custer Training Center, Kalamazoo and Calhoun Counties, Michigan, Camp Ravenna Joint Military Training Center, Portage and Trumbull Counties, Ohio, and Fort Drum, Jefferson County, New York – CEQ No. 20160115

Dear Mr. Fuller:

The U.S. Environmental Protection Agency has reviewed the referenced Draft Environmental Impact Statement (DEIS), which was prepared by Black & Veatch Special Projects Corporation, consultant to the Missile Defense Agency (MDA). Our review is pursuant to our authorities under the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

EPA provided scoping comments on this project in a letter dated October 27, 2014. In that letter, we identified potential environmental impacts relating to alternatives, wetlands, construction period issues, air quality, water supply and water resources, water quality, impacts to the Appalachian Trail, green infrastructure, analysis of indirect and cumulative impacts, connected actions, environmental justice, children's health, agency consultation, and related environmental documentation. We appreciate MDA addressing our comments relating to construction period issues, air quality, impacts to the Appalachian Trail, analyses of indirect and cumulative impacts, connected actions, environmental justice, and children's health.

MDA evaluated possible alternatives (hereby referred to as "sites") in the United States best suited for a potential deployment of an additional Continental United States Interceptor Site (CIS). Four potential locations for the siting of a future CIS were identified and presented in the DEIS, including:

- Fort Custer Training Center Site 1 (FCTC 1)
- Fort Custer Training Center Site 2 (FCTC 2)
- Camp Ravenna Joint Military Training Center (CRJMTC); and
- Fort Drum (FTD).

Another potential location, the Center for Security Forces Detachment Kittery – Survival, Evasion, Resistance and Escape (SERE), Redington Township, Maine, was considered as an alternative location, but was later not carried forward as an alternative due to anticipated major environmental impacts.

As part of the proposed project, MDA analyzed impacts relating to siting of a new CIS, as well as construction of the following infrastructure:

- Ground Based Interceptor (GBI) field;
- Mechanical/Electrical Building;
- Readiness & Communication Facility
- Satellite Communication System;
- In-flight Interceptor Communication System Data Terminal;
- Power Plant and Power Substation
- Missile Assembly Building;
- Interception Storage Facility;
- Kill Vehicle (KV) Fuel/Oxidizer Storage Facilities;
- CIS Explosive Storage Component Facility;
- Security and Entry Control Facilities;
- Ammunition and Explosive Storage Facility and Magazine;
- Maintenance Support Facility;
- Fuel Unloading and Storage Facility;
- Wastewater Treatment Facility;
- Water Supply Building;
- Administrative and Logistics Facility; and
- General infrastructure (water, sewer, communication, power, etc.)

Based on information provided in the DEIS, we rate this project overall as *Environmental Concerns – Insufficient Information* (EC-2). Individual ratings are provided for each alternative below. A summary of the rating system used in the evaluation of the DEIS is enclosed for your reference.

We rate FCTC 1 as *Lack of Objections* (LO). This determination is based on the presence of only minor environmental impacts. One potential impact, though, is major traffic congestion both during construction and during operation. The DEIS anticipated that the projected traffic congestion impact can be mitigated for with few project changes, including making the following changes to 40th Street and/or Columbia Avenue between Fort Custer and Interstate 94:

- Increase roadway infrastructure between Fort Custer and Interstate 94 (including adding turning lanes);
- Signalize intersections between Fort Custer and Interstate 94; and
- Promote carpooling and offset/alternating work shifts during construction and operation.

Fort Custer has potential habitat for several federally-listed threatened and endangered (T&E) species, including the Indiana and Northern long-eared bats, Mitchell's satyr butterfly, copperbelly water snake, and Eastern massasauga rattlesnake, though there are no documented occurrences of T&E species at the proposed project sites. Additionally, 20 acres of low quality wetlands are expected to be impacted.

Most environmental impacts at FCTC 2 are very similar to those of FCTC 1. However, we rate FCTC 2 as EC-2 primarily due to impacts to 78 acres of wetlands of variable quality.

We rate CRJMTTC as EC-2. This determination is based on several impacts, including impacts to 20 acres of high quality wetlands, impacts to water resources, and expected direct impacts to the Northern long-eared bat.

We rate FTD as EC-2. This determination is based on several impacts, including a major loss of wetlands (potentially up to 60 acres), water resource impacts, suspected presence of archaeological resources in the project's footprint, and closure and re-routing of a major thoroughfare, State Highway 3A.

Based on information provided in the DEIS, we have comments relating to alternatives selection, threatened and endangered species consultation, project footprint, sustainability, green infrastructure, and traffic analyses, as described below.

Alternatives Selection

There is no discussion if other alternatives were considered to the land-based interceptor sites, such as mobile, rail or satellite-based systems.

Threatened and Endangered Species Consultation

The DEIS provides a thorough discussion of the presence of, and potential impacts to, federally-listed threatened and endangered species at each of the sites, notably the Northern long eared and Indiana bats. The DEIS is unclear, though, if consultation with the U.S. Fish and Wildlife Service has been completed. We recommend including all correspondence associated with these consultations in the FEIS. The FEIS should also discuss specific conservation/mitigation measures that will address any impacts to federally-listed threatened or endangered species. Consultation with the natural resource agencies for Michigan, New York, and Ohio regarding state-listed species should also be included in the FEIS.

Wetlands

Multiple alternatives have proposed wetlands impacts that will trigger the need for a Clean Water Act Section 404 dredge and fill permit from the U.S. Army Corps of Engineers for the New York and Ohio sites and from the Michigan Department of Environmental Quality for the Michigan sites. The FEIS should include documentation of coordination with the Section 404 permitting agency and explain how the project has complied with the Section 404(b)(1) guidelines to first avoid, then minimize, and finally mitigate for any impacts to jurisdictional wetlands and other Waters of the United States. A proposed mitigation plan, with wetland type(s), acreage, and location(s) should be included in the FEIS. If use of a mitigation bank is proposed, then the identity, location, and available credits at that bank should be discussed.

Project Footprint

The proposed Fort Drum project footprint and cleared area are considerably larger than the generic siting criteria and the other candidate sites. The MDA should explain why the Fort Drum footprint and cleared area cannot be reduced to under 1100 and 800 acres, respectively. Fort Drum occupies more than 107,000 acres. MDA should discuss its evaluation of any alternate Fort Drum sites that were under consideration, and how the proposed Fort Drum site was chosen.

Sustainability

To the maximum extent possible, project managers are encouraged to utilize local and recycled materials; to recycle materials generated onsite; and to utilize technologies and fuels that minimize greenhouse gas emissions.

Further, to the extent feasible, renewable energy (including, but not limited to solar, wind, geothermal, biogas, and biomass) and energy-efficient technologies should be incorporated into the design, construction, and operation of all types of projects. For new structures, we encourage the use of energy-efficient and/or sustainable building materials, such as south-facing skylights and windows, motion-sensored lighting, Energy Star certified windows and doors, and installation of renewable energy sources.

Green Infrastructure

We strongly encourage on-site green stormwater management via use of bioretention and permeable pavement.

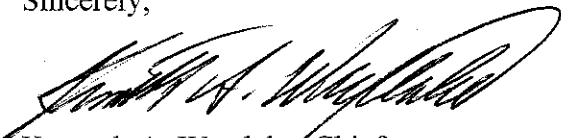
Traffic Analyses

The DEIS provides only a rudimentary assessment of projected traffic changes at each site. We recommend that detailed transportation studies should be conducted (and study results and mitigation described in the FEIS) for each site.

All of the alternatives considered will likely result in minor impacts to the natural environment, provided that our comments are addressed and adequate mitigation and project refinement is proposed for those impacts. We have enclosed a list of internet links that lead to a host of examples, mitigation options, and lessons learned, for comments discussed above.

Please mail us future NEPA documents on this project as they become available. These comments include input from our Region 2 office in New York City, which has responsibility for project proposals in the State of New York. If you have any questions, please contact Mike Sedlacek of my staff at 312-886-1765 or e-mail him at sedlacek.michael@epa.gov.

Sincerely,



Kenneth A. Westlake, Chief
NEPA Implementation Section
Office of Enforcement and Compliance Assurance

Encl: Summary of Rating Definitions and Follow-up Action
Additional Information in Support of EPA Comments

cc: MDA CIS EIS, Black & Veatch Corporation (mda.cis.eis@bv.com)
Dan Everson, U.S. Fish & Wildlife Service, Ohio Ecological Services Field Office
Scott Hicks, U.S. Fish & Wildlife Service, East Lansing Ecological Services Field Office
U.S. Fish & Wildlife Service, New York Ecological Services Field Office
Diane Kozlowski, U.S. Army Corps of Engineers, Buffalo District, Regulatory Branch
Bernard Lindstrom, U.S. Army Corps of Engineers, Pittsburgh Office, Regulatory Branch
Amy Lounds, Michigan Department of Environmental Quality, Wetland Program
David Stilwell, U.S. Fish & Wildlife Service, New York Field Office
Christina Vagvolgyi, New York State Division for Historic Preservation

SUMMARY OF RATING DEFINITIONS AND FOLLOW UP ACTION

Environmental Impact of the Action

LO-Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impacts. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1-Adequate

The EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collecting is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information

The draft EIS does not contain sufficient information for the EPA to fully assess the environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640 Policy and Procedures for the Review of the Federal Actions Impacting the Environment

Additional Information in Support of EPA Comments

Multi-media green building and land design practices. Utilize green building practices which have multi-media benefits, including energy efficiency, water conservation (see WaterSense below), and healthy indoor air quality. Apply building rating systems and no-cost online tools and guides, such as ENERGY STAR, Portfolio Manager, Target Finder, Indoor Air Quality Package, and WaterSense for building construction. The ENERGY STAR website (see below) includes, among other things, information on new single-family homes, multi-family homes, commercial and other buildings, and schools. The website also provides an ENERGY STAR “Training Center” free of charge.

- U.S. Green Building Council (USGBC) LEED Programs and Guides: <http://www.usgbc.org/>
- ENERGY STAR home page: <http://www.energystar.gov>
- ENERGY STAR Target Finder (no-cost online tool to set energy performance targets): <http://www.energystar.gov/targetfinder>
- Indoor Air Quality: <http://www.epa.gov/iaq>

Water conservation and efficiency in building construction. Promote water conservation and efficiency through the use of water efficient products (e.g., toilets, faucets, showerheads) and practices. For new building construction and restoration projects, we recommend considering the use of products with the WaterSense label where appropriate. Devices receiving the EPA WaterSense label must be at least 20% more water efficient than (and must meet or exceed the performance standards of) non-labeled devices of the same type. Additionally, when possible, consider the use of WaterSense Certified Professional Irrigation Partners and WaterSense Builder Partners. These professionals use WaterSense labeled devices where appropriate, are trained in the latest water conservation practices, and use the latest water efficiency tools and technologies, including irrigation equipment and xeriscaping for landscaping and best management practices for construction in the WaterSense New Home Specifications. Visit the WaterSense website for tips on water efficiency, a WaterSense labeled product search tool, a list of WaterSense Partners, access to the Water Budget Tool at: <http://www.epa.gov/watersense/>

In addition to using WaterSense labeled products and certified professionals, there are many water conservation strategies and best management practices that can be used in new construction and/or restoration. Here are some useful links to water conservation information:

- Whole Building Design Guide: http://www.wbdg.org/resources/water_conservation.php
- Alliance for Water Efficiency: <http://www.allianceforwaterefficiency.org/>
- Water Use It Wisely – 100 Ways to Conserve: <http://www.wateruseitwisely.com/100-ways-to-conserve/index.php>
- Determining Energy Usage http://water.epa.gov/infrastructure/sustain/energy_use.cfm

Green Building in Federal Agency Projects. The *Federal Green Construction Guide for Specifiers* includes helpful information for procuring green building products and construction/renovation services within the Federal government:
<http://www.wbdg.org/design/greenspec.php>

Use Environmentally Preferable Purchasing. Promote markets for environmentally preferable products by referencing EPA's multi-attribute Environmentally Preferable Purchasing guidance. Products and services include: Building and Construction, Carpets, Cleaning, Electronics, Fleets, Food Services, Landscaping, Meetings and Conferences, Office Supplies, and Paper.
<http://www.epa.gov/epp>

Purchase 'green' electronics, and measure their benefits

Require the purchase of desktop computers, monitors, and laptops that are registered as Silver or Gold products with EPEAT, the Electronics Product Environmental Assessment Tool at www.epeat.net. Products registered with EPEAT use less energy, are easier to recycle, and can be more easily upgraded than non-registered products. Energy savings, CO₂ emission reductions, and other environmental benefits achieved by the purchase, use and recycling of EPEAT-registered products can be quantified using the Electronics Environmental Benefits

Calculator: <http://eerc.ra.utk.edu/ccpct/eebc/eebc.html>
http://www.energystar.gov/index.cfm?c=products.pr_find_es_products

Consider Low Impact Development to help manage storm water. Low Impact Development (LID) is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product.

Implement site planning, design, construction, and maintenance strategies to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the building site with regard to the temperature, rate, volume, and duration of flow.

- <http://water.epa.gov/polwaste/green/>
- <http://water.epa.gov/infrastructure/greeninfrastructure/>
- <http://www.epa.gov/nrmrl/wswrd/wq/models/swc/>

Evaluate sustainable storm water management at brownfield sites. Consider designs for storm water management on compacted, contaminated soils in dense urban areas. For additional information, see: <http://www.epa.gov/brownfields/tools/swdp0408.pdf>

Alternative and Renewable Energy. The Department of Energy's "Green Power Network" (GPN) provides information and markets that can be used to supply alternative generated electricity. The following link identifies several suppliers of renewable energy. For additional information, see: http://apps3.eere.energy.gov/greenpower/buying/buying_power.shtml?

Clean Diesel Strategies

- For new equipment utilize contract specifications requiring advanced pollution controls and clean fuels: <http://www.northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf> and <http://www.epa.gov/cleandiesel/technologies/index.htm>.
- Use of clean diesel through add-on control technologies like diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.
- For more information on diesel emission controls in construction projects, please see: <http://www.northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf>
- Use low-sulfur diesel fuel (15 ppm sulfur maximum) in construction vehicles and equipment.
- Position the exhaust pipe so that diesel fumes are directed away from the operator and nearby workers, reducing the fume concentration to which personnel are exposed.
- Use catalytic converters to reduce carbon monoxide, aldehydes, and hydrocarbons in diesel fumes. These devices must be used with low sulfur fuels.
- Use enclosed, climate-controlled cabs pressurized and equipped with high efficiency particulate air (HEPA) filters to reduce the operators' exposure to diesel fumes. Pressurization ensures that air moves from inside to outside. HEPA filters ensure that any incoming air is filtered first.
- Regularly maintain diesel engines, which is essential to keep exhaust emissions low. Follow the manufacturer's recommended maintenance schedule and procedures. Smoke color can signal the need for maintenance. For example, blue/black smoke indicates that an engine requires servicing or tuning.
- Reduce exposure through work practices and training, such as turning off engines when vehicles are stopped for more than a few minutes, training diesel-equipment operators to perform routine inspection, and maintaining filtration devices.
- Repower older vehicles and/or equipment with diesel- or alternatively-fueled engines certified to meet newer, more stringent emissions standards. Purchase new vehicles that are equipped with the most advanced emission control systems available.
- Use electric starting aids such as block heaters with older vehicles to warm the engine reduces diesel emissions.
- Use respirators, which are only an interim measure to control exposure to diesel emissions. In most cases, an N95 respirator is adequate. Workers must be trained and fit-tested before they wear respirators. Depending on work being conducted, and if oil is present, concentrations of particulates present will determine the efficiency and type of mask and respirator. Personnel familiar with the selection, care, and use of respirators must perform the fit testing. Respirators must bear a NIOSH approval number.
- Per Executive Order 13045 on Children's Health , EPA recommends operators and workers pay particular attention to worksite proximity to places where children live, learn, and play, such as homes, schools, daycare centers, and playgrounds. Diesel emission reduction measures should be strictly implemented near these locations in order to be protective of children's health.

Utilizing recycled materials in construction projects. Many industrial and construction byproducts are available for use in road, building or infrastructure construction. Use of these materials can save money and reduce environmental impacts. The Recycled Materials Resource Center has developed user guidelines for many recycled materials and compiled existing national specifications. For additional information, see:

- <http://tmrc.wisc.edu>

- <http://www.epa.gov/osw/conserves/imr/index.htm>
- <http://www.epa.gov/epawaste/conserves/tools/cpg/products/index.htm>
- <http://www.fhwa.dot.gov/pavement/recycling/rectools.cfm>

Encourage cost-efficient, environmentally friendly landscaping. EPA's GreenScapes program provides cost-efficient and environmentally friendly solutions for landscaping. For additional information, see: <http://www.epa.gov/wastes/conserves/tools/greenscapes/index.htm>

Incorporate on-site energy generation and energy efficient equipment upgrades into projects at drinking water and wastewater treatment facilities. Consider using captured biogases in combined heat and power systems, and renewable energy (wind, solar, etc.) to generate energy for use on-site. Evaluate the potential energy savings associated with upgrading to more energy efficient equipment (pumps, motors, lighting, etc.) For additional information, see:

- <http://water.epa.gov/infrastructure/sustain/goinggreen.cfm>
- <http://www.epa.gov/region9/waterinfrastructure/howto.html>

